```
=> d
L1 HAS NO ANSWERS
L1              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l1 ful
FULL SEARCH INITIATED 18:58:04 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    22749 TO ITERATE

100.0% PROCESSED    22749 ITERATIONS                                 7 ANSWERS
SEARCH TIME: 00.00.01

L2            7 SEA SSS FUL L1

=> d 1-7

L2   ANSWER 1 OF 7  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   931585-84-1  REGISTRY
ED   Entered STN:  22 Apr 2007
CN   4H-1-Benzopyran-4-one, 2,3-dihydro-5-hydroxy-2-(4-hydroxyphenyl)-7-methyl-
     (CA INDEX NAME)
MF   C16 H14 O4
SR   Chemical Library
       Supplier: TimTec, Inc.
LC   STN Files:   CHEMCATS
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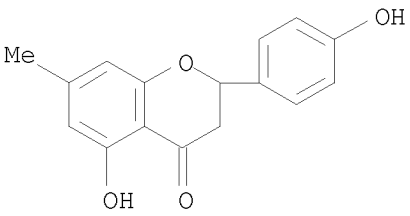


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**PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT**


L2   ANSWER 2 OF 7  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   910612-70-3  REGISTRY
ED   Entered STN:  18 Oct 2006
CN   INDEX NAME NOT YET ASSIGNED
MF   C18 H18 O5
SR   Other Sources
       Database: Wiley Subscription Services, Inc.
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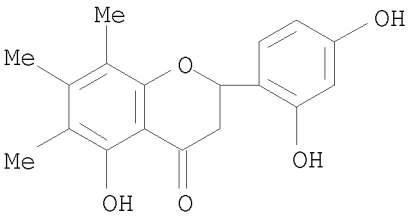
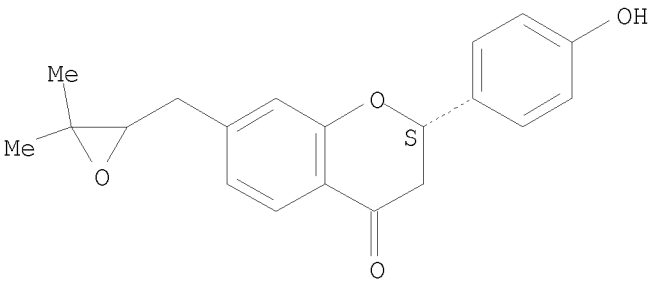


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L2 ANSWER 3 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN
RN 850306-62-6 REGISTRY
ED Entered STN: 12 May 2005
CN 4H-1-Benzopyran-4-one, 7-[(3,3-dimethyl-2-oxiranyl)methyl]-2,3-dihydro-2-(4-hydroxyphenyl)-, (2S)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 4H-1-Benzopyran-4-one, 7-[(3,3-dimethyloxiranyl)methyl]-2,3-dihydro-2-(4-hydroxyphenyl)-, (2S)- (9CI)
OTHER NAMES:
CN Parkintin
FS STEREOSEARCH
MF C20 H20 O4
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (-).
Currently available stereo shown.

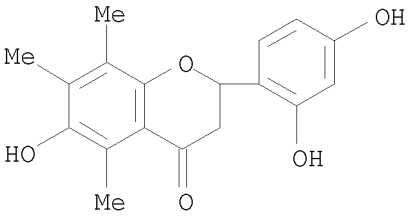


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 4 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN
RN 195201-78-6 REGISTRY
ED Entered STN: 10 Oct 1997
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-6-hydroxy-5,7,8-trimethyl- (CA INDEX NAME)
MF C18 H18 O5

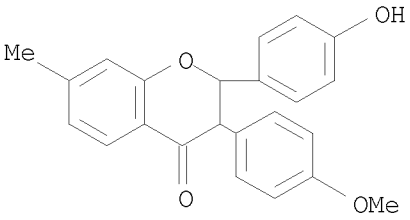
SR CA
LC STN Files: CA, CAPLUS, TOXCENTER



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 5 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN
RN 189290-07-1 REGISTRY
ED Entered STN: 29 May 1997
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-2-(4-hydroxyphenyl)-3-(4-methoxyphenyl)-7-methyl- (CA INDEX NAME)
MF C23 H20 O4
SR CA
LC STN Files: CA, CAPLUS

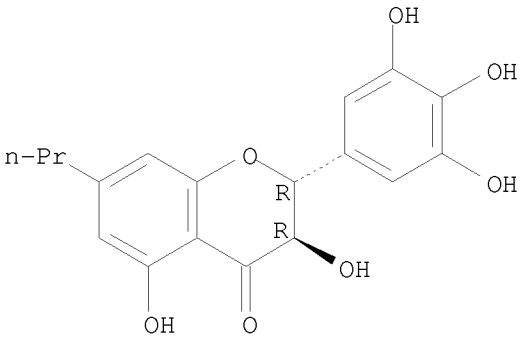


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 6 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN
RN 28137-10-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Marsupinol (8CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H18 O7
LC STN Files: BIOSIS, CA, CAPLUS

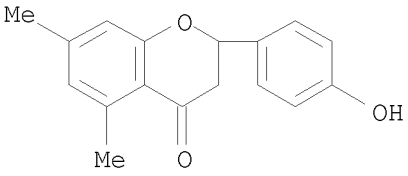
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L2 ANSWER 7 OF 7 REGISTRY COPYRIGHT 2008 ACS on STN
RN 2567-78-4 REGISTRY
ED Entered STN: 16 Nov 1984
CN Flavanone, 4'-hydroxy-5,7-dimethyl- (6CI, 7CI, 8CI) (CA INDEX NAME)
MF C17 H16 O3
LC STN Files: BEILSTEIN*, CA, CAOLD, CAPLUS
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3 REFERENCES IN FILE CA (1907 TO DATE)
3 REFERENCES IN FILE CAPLUS (1907 TO DATE)
2 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	192.82	1065.15

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-8.00

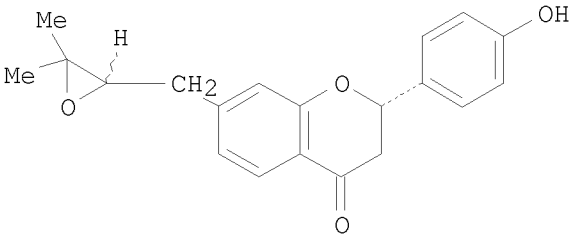
FILE 'CAPLUS' ENTERED AT 18:58:17 ON 24 MAY 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

FILE COVERS 1907 - 24 May 2008 VOL 148 ISS 22
FILE LAST UPDATED: 23 May 2008 (20080523/ED)

=> s l2
L3 7 L2

=> d 1-7 bib abs hitstr

L3 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2005:121909 CAPLUS
DN 142:407613
TI Parkintin: a new flavanone with epoxy-isopentyl moiety from Parkinsonia aculeata Linn. (Caesalpiniaceae)
AU Ali, Muhammad Shaiq; Ahmed, Farman; Pervez, Muhammad Kashif; Azhar, Iqbal; Ibrahim, Syed Amir
CS H.E.J. Research Institute of Chemistry, University of Karachi, Karachi, 75270, Pak.
SO Natural Product Research (2005), 19(1), 53-56
CODEN: NPRAAT; ISSN: 1478-6419
PB Taylor & Francis Ltd.
DT Journal
LA English
GI



I

AB A new flavanone with epoxy-isopentyl moiety named parkintin (I) has been isolated from the methanol soluble part of Parkinsonia aculeata Linn.

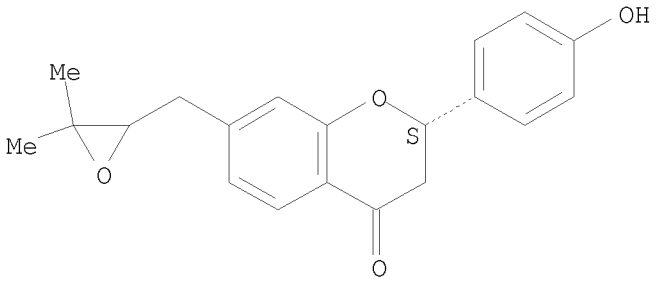
belonging to the family Caesalpiniaceae. The structure of parkintin has been established with the aid of spectroscopic techniques including COSY and HMBC expts.

IT 850306-62-6P, Parkintin
RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(flavanone with epoxy-isopentyl moiety from Parkinsonia aculeata)

RN 850306-62-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-[(3,3-dimethyl-2-oxiranyl)methyl]-2,3-dihydro-2-(4-hydroxyphenyl)-, (2S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).
Currently available stereo shown.



RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1997:547802 CAPLUS

DN 127:238878

TI Development of whitening agents by synthesis of polyhydroxy aromatic compounds

AU Lee, Hyun-Ho; Rhee, Young Ho; Kim, Kyung Ae; Choi, Jong Kwon; Oh, Hun-Seung; Lee, Sang Hwa; Kim, Jin Jun; Lee, Cheon Koo; Kang, Seh Hoon

CS LG Chemical Ltd., Specialty Chemical Res. Inst., Taejon, 305-380, S. Korea

SO Scientific Conference of the Asian Societies of Cosmetic Scientists, 3rd, Taipei, May 23-24, 1997 (1997), 37-42 Publisher: Asian Societies of Cosmetic Scientists, Taichung, Taiwan.
CODEN: 64XSAZ

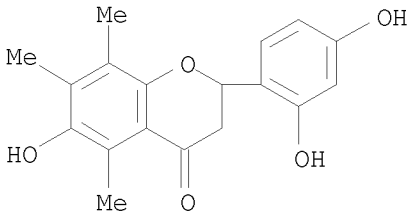
DT Conference

LA English

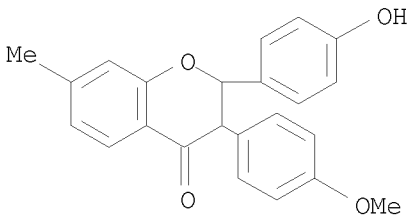
AB Some natural polyhydroxy aromatic compds. have inhibitory activity against tyrosinase, key enzyme for formation of melanin pigment. The authors examined the structure-activity relationship of the natural polyhydroxy aromatic compds. and synthesized a number of new derivs. through various methods. Skin lightening effects of these compds. were examined through inhibition of mushroom tyrosinase and inhibition of melanogenesis on B-16 melanoma cells. These new compds. showed strong inhibitory activity against tyrosinase (IC50: 1.0-130 mg/mL). Good lightening effects due to inhibition of melanogenesis were observed from several resorcinol and pyrogallol derivs. In toxicol. tests such as skin primary irritation and sensitization, the above compds. were sufficiently safe for cosmetic use.

IT 195201-78-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of polyhydroxy aromatic compds. as skin-whitening agents)
RN 195201-78-6 CAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-6-hydroxy-5,7,8-trimethyl- (CA INDEX NAME)



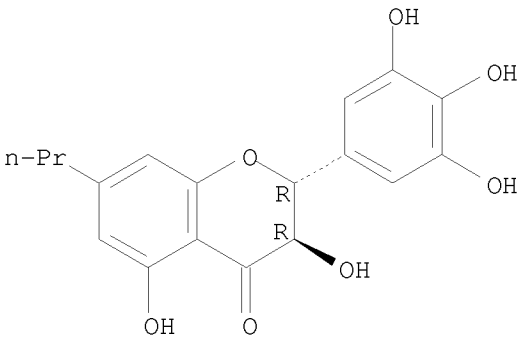
L3 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:222215 CAPLUS
DN 126:301849
TI Synthesis and post-coital contraceptive activity of a new series of substituted 2,3-diaryl-2H-1-benzopyrans
AU Hajela, K.; Kapil, R. S.
CS Regional Research Laboratory, Jammu Tawi, 180 001, India
SO European Journal of Medicinal Chemistry (1997), 32(2), 135-142
CODEN: EJMCA5; ISSN: 0223-5234
PB Elsevier
DT Journal
LA English
AB A series of substituted 2,3-diaryl-2H-1-benzopyrans have been synthesized and screened for their post-coital contraceptive activity in rats. Most of the compds. showed 100% inhibition in a single day schedule at a dose level of 1.0 mg/kg. 2-[4-(2-Piperidinoethoxy)phenyl]-3-(4-methoxyphenyl)-2H-1-benzopyran was found to be the most active with a min. ED (MED) of 0.2 mg/kg in single day testing. Further, it also showed high antiestrogenic activity and is devoid of any agonistic activity.
IT 189290-07-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and post-coital contraceptive activity of a new series of substituted 2,3-diaryl-2H-1-benzopyrans)
RN 189290-07-1 CAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-2-(4-hydroxyphenyl)-3-(4-methoxyphenyl)-7-methyl- (CA INDEX NAME)



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

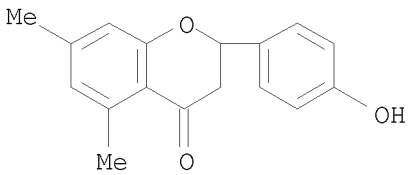
L3 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1970:86953 CAPLUS
DN 72:86953
OREF 72:15795a,15798a
TI Thin-layer chromatography in biomedical research
AU Trivedi, J. J.
CS Physiol. Dep., Smt. N. H. L. Munic. Med. Coll., Ahmedabad, India
SO Journal of the Institution of Engineers (India), Part GE: General Engineering (1969), 49(Pt. 2), 90-5
CODEN: JEGEAZ; ISSN: 0368-1920
DT Journal; General Review
LA English
GI For diagram(s), see printed CA Issue.
AB After reviewing applications of thin-layer chromatog. and electrophoresis in biomed. research, including quant. detns., the use of thin-layer chromatog. for separating components in the EtOAc extract of Pterocarpus marsupium heartwood is reported. By development with the upper layer of a 25:25:6 BuOH-H2O-HOAc mixture and spraying with H2SO4, 5 spots were detected and the structure of 1 component was identified tentatively as I. Multiple development with 25:25:6 BuOH-H2O-HOAc and H2O-saturated EtOAc, in either order, and spraying with H2SO4 gave 7 colored spots. 19 refs.
IT 28137-10-2
RL: ANST (Analytical study)
(a new flavanone)
RN 28137-10-2 CAPLUS
CN Marsupinol (8CI) (CA INDEX NAME)

Absolute stereochemistry.

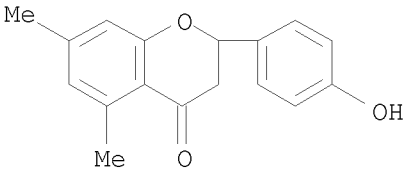


L3 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1965:438982 CAPLUS
DN 63:38982
OREF 63:6957c-d
TI The course of the Algar-Flynn-Oyamada (A.F.O.) reaction
AU Dean, F. M.; Podimuang, Verapong
CS Univ. Liverpool, UK
SO Journal of the Chemical Society (1965), (July), 3978-87

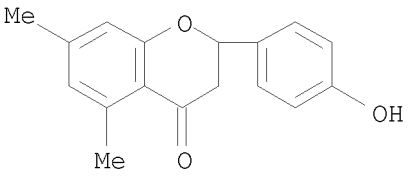
CODEN: JCSOA9; ISSN: 0368-1769
DT Journal
LA English
AB It is proposed that the course of the oxidation, by alkaline hydrogen peroxide, of derivatives of 2'-hydroxychalcone to flavonoids is a combination of cyclization and oxidation not involving epoxides. For the alternative reaction leading to aurones the accepted route through epoxide intermediates is retained and supported. It is shown that the latter reaction can be diverted into a synthesis of isoflavones, and that 4'-hydroxyaurones are conveniently prepared by the ferricyanide oxidation of 2',4-dihydroxychalcones.
IT 2567-78-4P, Flavanone, 4'-hydroxy-5,7-dimethyl-
RL: PREP (Preparation)
(preparation of)
RN 2567-78-4 CAPLUS
CN Flavanone, 4'-hydroxy-5,7-dimethyl- (6CI, 7CI, 8CI) (CA INDEX NAME)



L3 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1960:2212 CAPLUS
DN 54:2212
OREF 54:516a-b
TI Flavanones. XXV. Nitration of flavanone derivatives
AU Hoshino, Masamatsu
CS Tohoku Univ., Sendai
SO Nippon Kagaku Zasshi (1957), 78, 1538-40
CODEN: NPKZAZ; ISSN: 0369-5387
DT Journal
LA Unavailable
AB Nitric acid oxidation of 6-methylflavanone yielded 27% 6-methyl-8-nitroflavanone, m. 181-2°, and 3% 2'-hydroxy-3'-nitro-5'-methylchalcone, m. 157-8°. Similarly, 4'-hydroxyflavanone gave 63% 3'-nitro-4'-hydroxyflavanone, m. 157-8°, which was hydrolyzed quant. to 2'-hydroxy-3-nitro-4-hydroxychalcone, m. 223-4°. Oxidation of 4'-methoxyflavanone gave 3'-nitro derivative, m. 139-40°. For identifications, all chalcones and flavanones were synthesized by authentic methods from appropriate acetophenone or benzaldehyde compds.
IT 2567-78-4
(Derived from data in the 6th Collective Formula Index (1957-1961))
RN 2567-78-4 CAPLUS
CN Flavanone, 4'-hydroxy-5,7-dimethyl- (6CI, 7CI, 8CI) (CA INDEX NAME)



L3 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1960:2211 CAPLUS
DN 54:2211
OREF 54:515h-i,516a
TI Flavanones. XX. Syntheses of 5,7-dimethylflavanones
AU Takatori, Masayuki; Fujise, Shinichiro
CS Tohoku Univ., Sendai
SO Nippon Kagaku Zasshi (1957), 78, 309-11
CODEN: NPKZAZ; ISSN: 0369-5387
DT Journal
LA Unavailable
AB 2-Hydroxy-4,6-dimethyl-acetophenone was converted into 2'-hydroxy-4',6'-dimethyl chalcones by treatment with the appropriate aromatic aldehyde in 50% aqueous NaOH or KOH: 3,4-methylenedioxy, m. 100.5-1.5°, 39%; 4-hydroxy, m. 133.5-4.5°, 79%; 2- hydroxy, m. 124-5° (decomposition), 35%; 3-hydroxy-4-methoxy, m. 142-3°, 29%. The chalcones were converted into following 5,7-dimethyl flavanones by boiling in alc.: 3',4'-methylenedioxy, m. 152-2.5° (30 min., 50% EtOH, 74% yield); 4'-hydroxy, m. 188-9° (14 hrs., 50% EtOH, 47%); 2'-hydroxy, m. 190-1° (3 hrs., 60% MeOH, 53%); 3'-hydroxy-4'-methoxy (50 hrs., EtOH, 43%).
IT 2567-78-4P, Flavanone, 4'-hydroxy-5,7-dimethyl-
RL: PREP (Preparation)
(preparation of)
RN 2567-78-4 CAPLUS
CN Flavanone, 4'-hydroxy-5,7-dimethyl- (6CI, 7CI, 8CI) (CA INDEX NAME)



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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	48.23	1113.38

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-5.60	-13.60

FILE 'REGISTRY' ENTERED AT 19:10:54 ON 24 MAY 2008

Property values tagged with IC are from the ZIC/VINITI data file
provided by InfoChem.

STRUCTURE FILE UPDATES: 23 MAY 2008 HIGHEST RN 1022225-74-6
DICTIONARY FILE UPDATES: 23 MAY 2008 HIGHEST RN 1022225-74-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

  Please note that search-term pricing does apply when
  conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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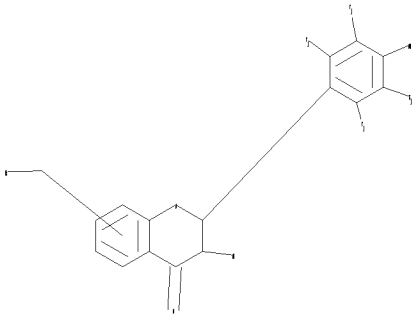

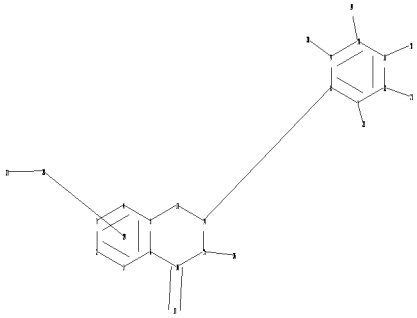

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17 18 19 20 21 22 26 27 28
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
chain bonds :
7-22 8-14 9-20 10-19 11-18 12-21 15-26 16-17 27-28
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-13 6-16 7-8 7-12 8-9 9-10 10-11 11-12 13-14
14-15 15-16
exact/norm bonds :
7-22 9-20 10-19 11-18 12-21 15-26 16-17 27-28

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exact bonds :
5-13  6-16  8-14  13-14  14-15  15-16
normalized bonds :
1-2  1-6  2-3  3-4  4-5  5-6  7-8  7-12  8-9  9-10  10-11  11-12
isolated ring systems :
containing 1 : 7 :


G1:H,OH

Match level :
1:Atom  2:Atom  3:Atom  4:Atom  5:Atom  6:Atom  7:Atom  8:Atom  9:Atom  10:Atom
11:Atom  12:Atom  13:Atom  14:Atom  15:Atom  16:Atom  17:CLASS  18:CLASS  19:CLASS
20:CLASS  21:CLASS  22:CLASS  26:CLASS  27:CLASS  28:CLASS  29:Atom
Generic attributes :
27:
Saturation             : Saturated




L4      STRUCTURE UPLOADED

=> d
L4 HAS NO ANSWERS
L4              STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY -  AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.


=> s l4 ful
FULL SEARCH INITIATED 19:14:13 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -    32933 TO ITERATE

100.0% PROCESSED    32933 ITERATIONS                                16 ANSWERS
SEARCH TIME: 00.00.01

L5           16 SEA SSS FUL L4

=> d 1-16

L5   ANSWER 1 OF 16  REGISTRY  COPYRIGHT 2008 ACS on STN
RN   1021328-10-8  REGISTRY
ED   Entered STN:  16 May 2008
CN   4H-1-Benzopyran-4-one, 2,3-dihydro-3,5,7-trihydroxy-8-(3-hydroxy-3-
     methylbutyl)-2-(4-hydroxyphenyl)-  (CA INDEX NAME)
MF   C20 H22 O7
SR   CA
LC   STN Files:   CA, CAPLUS, TOXCENTER
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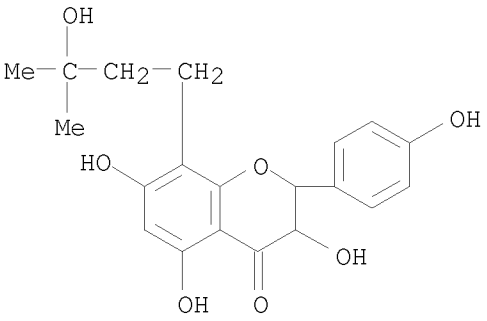
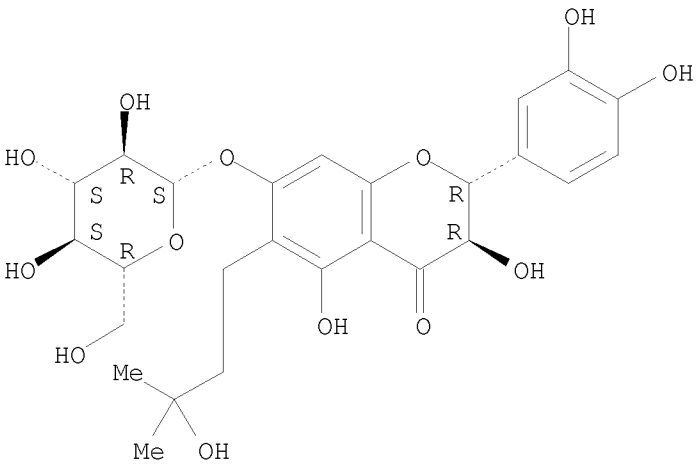


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 2 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 952115-96-7 REGISTRY
ED Entered STN: 31 Oct 2007
CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-, (2R,3R)- (CA INDEX NAME)
FS STEREOSEARCH
MF C26 H32 O13
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (-).

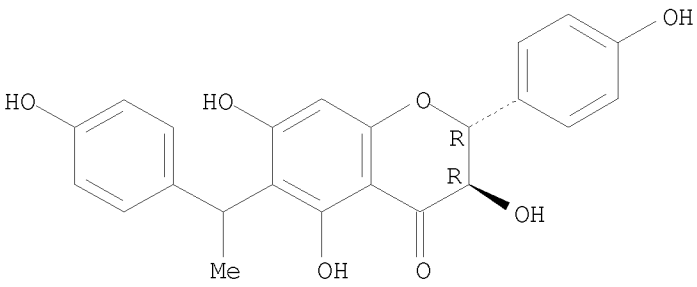


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 3 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 935697-32-8 REGISTRY
ED Entered STN: 23 May 2007
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3,5,7-trihydroxy-2-(4-hydroxyphenyl)-6-[1-(4-hydroxyphenyl)ethyl]-, (2R,3R)-rel- (CA INDEX NAME)
FS STEREOSEARCH
MF C23 H20 O7
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.

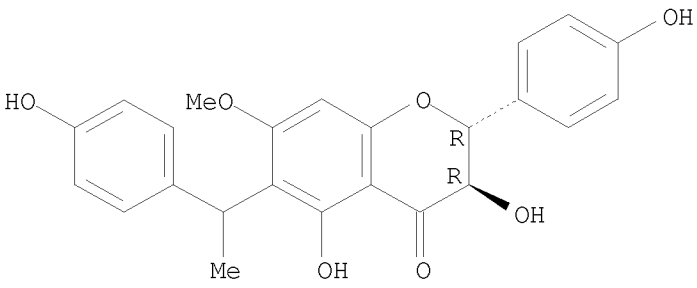


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 4 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 935697-30-6 REGISTRY
ED Entered STN: 23 May 2007
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3,5-dihydroxy-2-(4-hydroxyphenyl)-6-[1-(4-hydroxyphenyl)ethyl]-7-methoxy-, (2R,3R)-rel- (CA INDEX NAME)
FS STEREOSEARCH
MF C24 H22 O7
SR CA
LC STN Files: CA, CAPLUS

Relative stereochemistry.

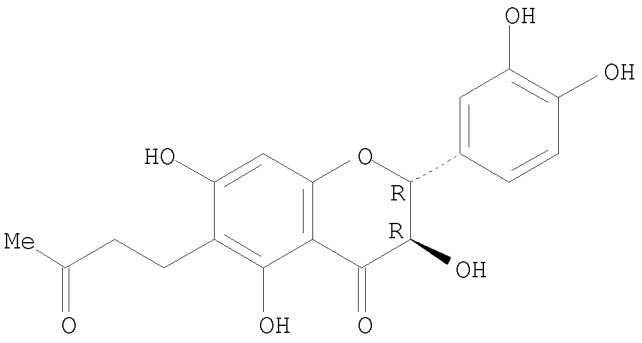


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 5 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 220936-65-2 REGISTRY
ED Entered STN: 04 Apr 1999
CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-oxobutyl)-, (2R,3R)- (CA INDEX NAME)
OTHER NAMES:
CN 6-(3''-Oxobutyl)taxifolin
FS STEREOSEARCH
MF C19 H18 O8
SR CA
LC STN Files: CA, CAPLUS

Absolute stereochemistry. Rotation (+).

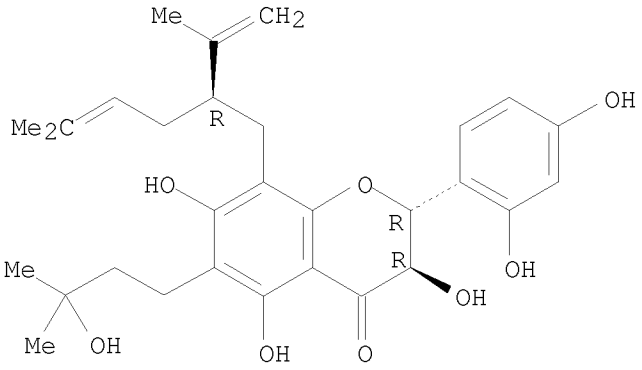


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 6 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 182556-80-5 REGISTRY
ED Entered STN: 31 Oct 1996
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-[(2R)-5-methyl-2-(1-methylethenyl)-4-hexenyl]-, (2R,3R)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-[5-methyl-2-(1-methylethenyl)-4-hexenyl]-, [2R-[2α,3β,8(R*)]]-
OTHER NAMES:
CN Kosamol A
FS STEREOSEARCH
MF C30 H38 O8
SR CA
LC STN Files: BIOSIS, CA, CAPLUS, TOXCENTER

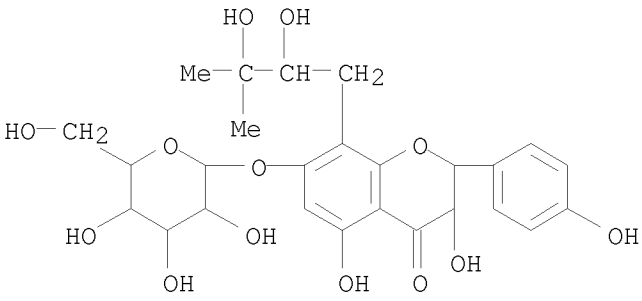
Absolute stereochemistry. Rotation (+).



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

6 REFERENCES IN FILE CA (1907 TO DATE)
6 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 7 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 156258-54-7 REGISTRY
ED Entered STN: 12 Jul 1994
CN 4H-1-Benzopyran-4-one, 8-(2,3-dihydroxy-3-methylbutyl)-7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-2-(4-hydroxyphenyl)-, [2R-[2α,3β,8(R*)]]- (9CI) (CA INDEX NAME)
MF C26 H32 O13
SR CA
LC STN Files: CA, CAPLUS

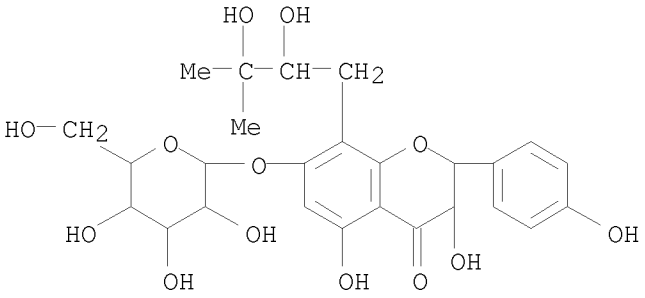


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 8 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 156216-79-4 REGISTRY
ED Entered STN: 08 Jul 1994
CN 4H-1-Benzopyran-4-one, 8-(2,3-dihydroxy-3-methylbutyl)-7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-2-(4-hydroxyphenyl)-, [2R-[2α,3β,8(S*)]]- (9CI) (CA INDEX NAME)

MF C26 H32 O13
SR CA
LC STN Files: CA, CAPLUS

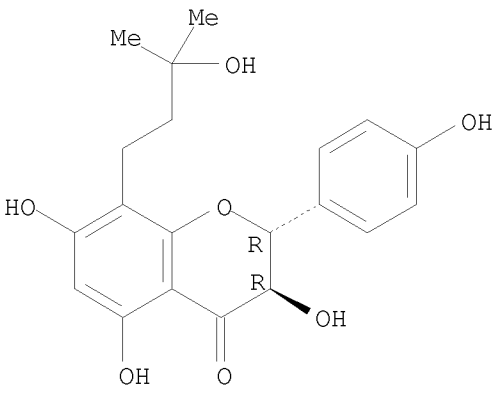


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 9 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 124901-83-3 REGISTRY
ED Entered STN: 19 Jan 1990
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3,5,7-trihydroxy-8-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R-trans)- (9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C20 H22 O7
SR CA
LC STN Files: CA, CAPLUS

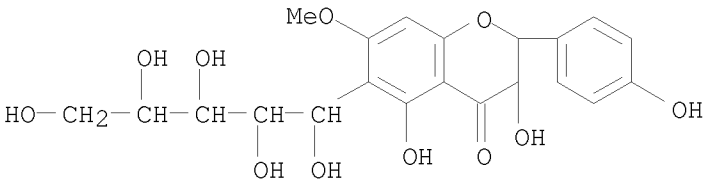
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

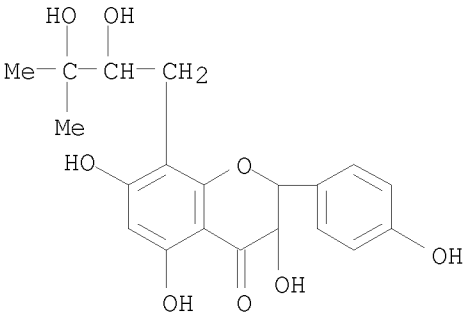
L5 ANSWER 10 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 112742-34-4 REGISTRY
ED Entered STN: 06 Feb 1988
CN Flavanone, 3,4',5-trihydroxy-7-methoxy-6-(1,2,3,4,5-pentahydroxypentyl)-
(6CI) (CA INDEX NAME)
MF C21 H24 O11
SR CAOLD
LC STN Files: CA, CAOLD, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)
1 REFERENCES IN FILE CAOLD (PRIOR TO 1967)

L5 ANSWER 11 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 65332-46-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN 4H-1-Benzopyran-4-one, 8-(2,3-dihydroxy-3-methylbutyl)-2,3-dihydro-3,5,7-
trihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)
MF C20 H22 O8
LC STN Files: CA, CAPLUS



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

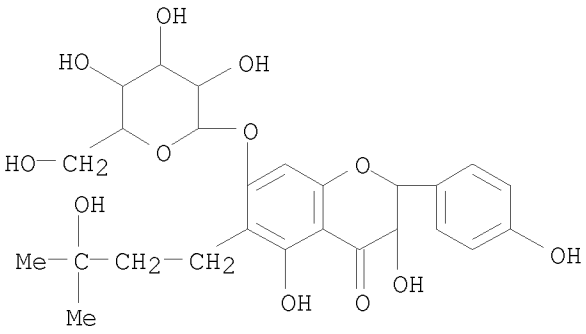
1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 12 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 53109-34-5 REGISTRY
ED Entered STN: 16 Nov 1984
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-

dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, heptaacetate, (2R-trans)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Phellavin acetate
MF C40 H46 O19
CI IDS
LC STN Files: CA, CAPLUS

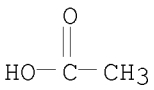
CM 1

CRN 32507-67-8
CMF C26 H32 O12



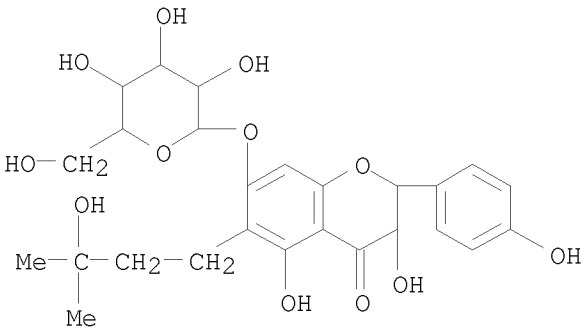
CM 2

CRN 64-19-7
CMF C2 H4 O2



1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 13 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 32507-67-8 REGISTRY
ED Entered STN: 16 Nov 1984
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R,3R)- (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R-trans)-
CN Phellavin (8CI)
MF C26 H32 O12
CI COM
LC STN Files: BEILSTEIN*, BIOSIS, CA, CAPLUS, NAPRALERT
(*File contains numerically searchable property data)

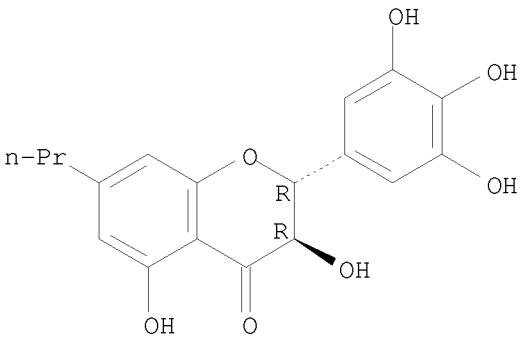


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7 REFERENCES IN FILE CA (1907 TO DATE)
7 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 14 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 28137-10-2 REGISTRY
ED Entered STN: 16 Nov 1984
CN Marsupinol (8CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C18 H18 O7
LC STN Files: BIOSIS, CA, CAPLUS

Absolute stereochemistry.



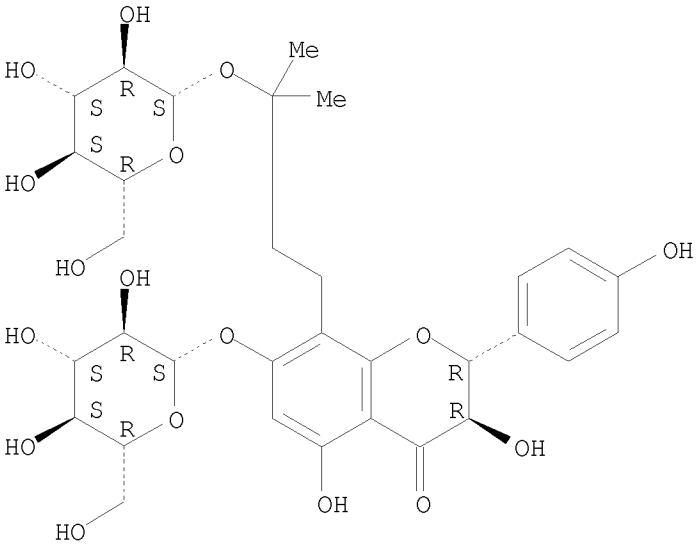
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 15 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 20194-52-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-8-[3-(β-D-glucopyranosyloxy)-3-methylbutyl]-2,3-dihydro-3,5-dihydroxy-2-(4-

hydroxyphenyl)-, (2R,3R)- (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-8-[3-(β-D-glucopyranosyloxy)-3-methylbutyl]-2,3-dihydro-3,5-dihydroxy-2-(4-hydroxyphenyl)-, (2R-trans)-
CN Flavanone, 3,4',5,7-tetrahydroxy-8-(3-hydroxy-3-methylbutyl)-, 7,8-di-β-D-glucopyranoside (8CI)
OTHER NAMES:
CN Dihydrophellozide
CN Phelloside, dihydro-
FS STEREOSEARCH
MF C32 H42 O17
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)

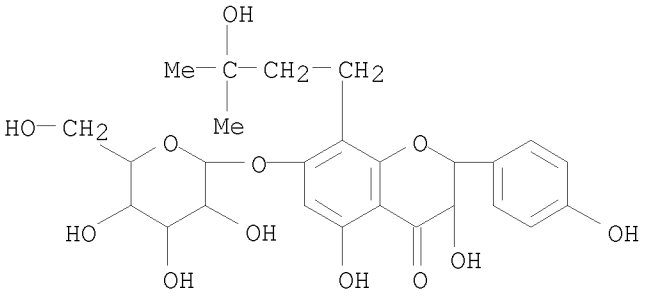
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L5 ANSWER 16 OF 16 REGISTRY COPYRIGHT 2008 ACS on STN
RN 549-16-6 REGISTRY
ED Entered STN: 16 Nov 1984
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-8-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R-trans)-(9CI) (CA INDEX NAME)
MF C26 H32 O12
LC STN Files: BEILSTEIN*, CA, CAPLUS
(*File contains numerically searchable property data)



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

2 REFERENCES IN FILE CA (1907 TO DATE)
2 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> fil caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	212.66	1326.04

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-13.60

FILE 'CAPLUS' ENTERED AT 19:14:35 ON 24 MAY 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 24 May 2008 VOL 148 ISS 22
FILE LAST UPDATED: 23 May 2008 (20080523/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.
They are available for your review at:

http://www.cas.org/legal/infopolicy.html

=> s l5
L6 25 L5

=> d 1-25 bib abs hitstr

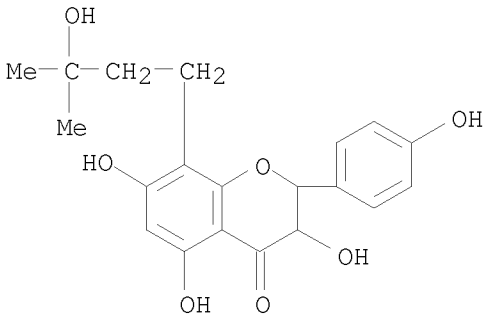
L6 ANSWER 1 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2008:529833 CAPLUS
DN 148:487228
TI Compounds and methods for treating estrogen receptor-related diseases
IN Li, Jin; Meng, Kun
PA Shenogen Pharma Group Ltd., Peop. Rep. China
SO PCT Int. Appl., 68pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2008052005	A2	20080502	WO 2007-US82286	20071023

PI W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
PRAI US 2006-862984P P 20061025

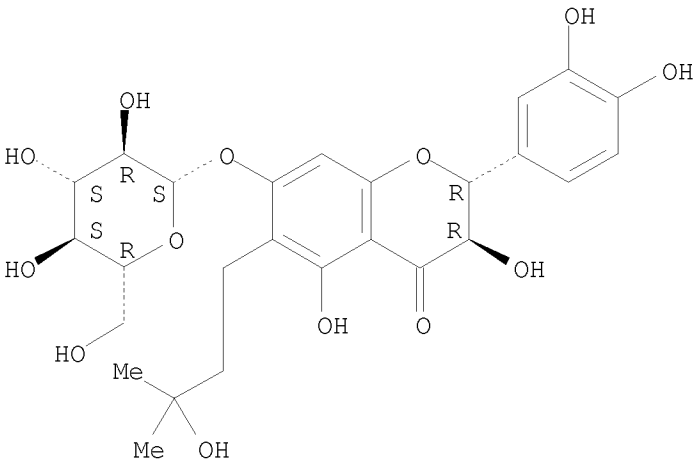
AB Provided herein in certain embodiments are compds., pharmaceutical compns. and methods for modulating the functions of estrogen receptor α36, for preventing and/or treating diseases related to estrogen receptor α36, for preventing and/or treating respiratory diseases such as asthma, for inducing cell death and/or inhibiting cell proliferation and for preventing and/or treating diseases involving abnormal cell proliferation such as cancers. Thus, human endometrial cancer HeclA cells were serum-starved overnight and exposed to tamoxifen or icaritin at different concns. (0, 0.001, 0.01, 0.1, 1, 3, and 5 μM, resp.) for 24 h. Icaritin had significant inhibitory effect on the growth of HeclA cells, while tamoxifen had the opposite effect of stimulating the growth of HeclA cells at concns. below 3 μM. Also, icaritin at concentration of 5 μM had inhibitory effect on lung and prostate cancer cells, and at 10 μM induced cell death.

IT 1021328-10-8
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(estrogen receptor α36 modulators and methods for treating estrogen receptor-related diseases)
RN 1021328-10-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3,5,7-trihydroxy-8-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)- (CA INDEX NAME)



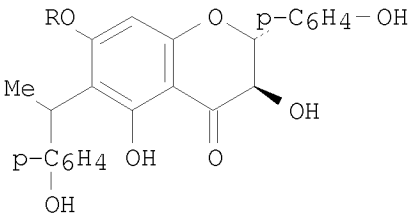
L6 ANSWER 2 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:847096 CAPLUS
DN 147:443750
TI Anti HIV-1 flavonoid glycosides from Ochna integerrima
AU Reutrakul, Vichai; Ningnuek, Niwat; Pohmakotr, Manat; Yoosook, Chalobon; Napaswad, Chanita; Kasisit, Jitra; Santisuk, Thawatchai; Tuchinda, Patoomratana
CS Department of Chemistry, Faculty of Science, Mahidol University, Bangkok, Thailand
SO Planta Medica (2007), 73(7), 683-688
CODEN: PLMEAA; ISSN: 0032-0943
PB Georg Thieme Verlag
DT Journal
LA English
AB Bioassay-guided fractionation of the anti-HIV-1 active EtOAc extract from leaves and twigs of O. integerrima led to the isolation of 5 new flavonoid glycosides 1-5, 5 known flavonoids 6-10, and 2 known flavonoid glycosides 11 and 12. Structures were determined based on spectroscopic analyses. 6-γ,γ-Dimethylallyldihydrokaempferol 7-O-β-D-glucoside (1), 6-γ,γ-dimethylallylquercetin 7-O-β-D-glucoside (3), 6-(3-hydroxy-3-methylbutyl)taxifolin 7-O-β-D-glucoside (4), 6-(3-hydroxy-3-methylbutyl)quercetin 7-O-β-D-glucoside (5), and 6-γ,γ-dimethylallyltaxifolin 7-O-β-D-glucoside (11) showed anti-HIV-1 activities in the syncytium assay using the ΔTat/revMC99 virus and the 1A2 cell line system with EC50 values ranging from 14.0-102.4 μg/mL. Furthermore, ochnaflavone 7''-O-Me ether (7) and 2'',3''-dihydroochnaflavone 7''-O-Me ether (8) were very active; they exerted activities in the syncytium assay with EC50 values of 2.0 and 0.9 μg/mL, resp., and likewise inhibited HIV-1 reverse transcriptase (RT) with IC50 values of 2.0 and 2.4 μg/mL, resp.
IT 952115-96-7P
RL: ANT (Analyte); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); ANST (Analytical study); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(anti HIV-1 flavonoid glycosides from Ochna integerrima)
RN 952115-96-7 CAPLUS
CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-, (2R,3R)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 3 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2007:325198 CAPLUS
DN 146:481840
TI Spectral assignments and reference data NMR assignments of unusual flavonoids from the kino of Eucalyptus citriodora
AU Freitas, Marinalva Oliveira; Lima, Mary Anne S.; Silveira, Edilberto R.
CS Curso de Pos-Graducao em Quimica Organica, Departamento de Quimica Organica e Inorganica, Centro de Ciencias, Universidade Federal do Ceara, Fortaleza, 60451-970, Brazil
SO Magnetic Resonance in Chemistry (2007), 45(3), 262-264
CODEN: MRCHEG; ISSN: 0749-1581
PB John Wiley & Sons Ltd.
DT Journal
LA English
GI

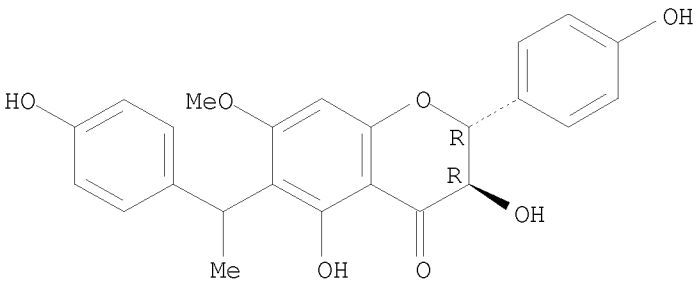


I

AB Two unusual flavonoids, 3,5,4',5''-tetrahydroxy-7-methoxy-6-[1-(p-hydroxy-phenyl)ethyl]flavanone (I, R = Me) and 3,5,7,4',5''-pentahydroxy-6-[1-(p-hydroxy-phenyl)ethyl]flavanone (I, R=H), were isolated from the kino of Eucalyptus citriodora. Structural elucidation of the new compds. were established on the basis of spectral data, particularly by the use of 1D NMR and several 2D shift-correlated NMR pulse sequences (1H, 1H-COSY, HMQC, HMBC).
IT 935697-30-6P 935697-32-8P

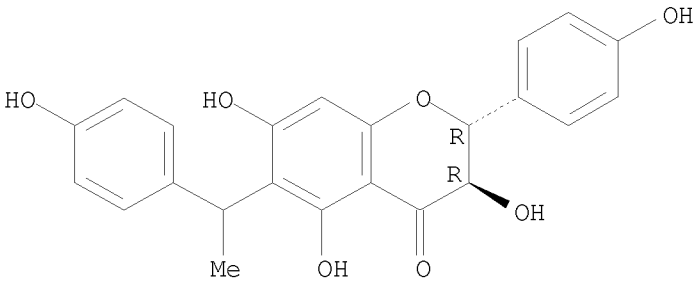
RL: NPO (Natural product occurrence); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(spectral assignments and reference data NMR assignments of unusual flavonoids from kino of Eucalyptus citriodora)
RN 935697-30-6 CAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3,5-dihydroxy-2-(4-hydroxyphenyl)-6-[1-(4-hydroxyphenyl)ethyl]-7-methoxy-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.



RN 935697-32-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3,5,7-trihydroxy-2-(4-hydroxyphenyl)-6-[1-(4-hydroxyphenyl)ethyl]-, (2R,3R)-rel- (CA INDEX NAME)

Relative stereochemistry.

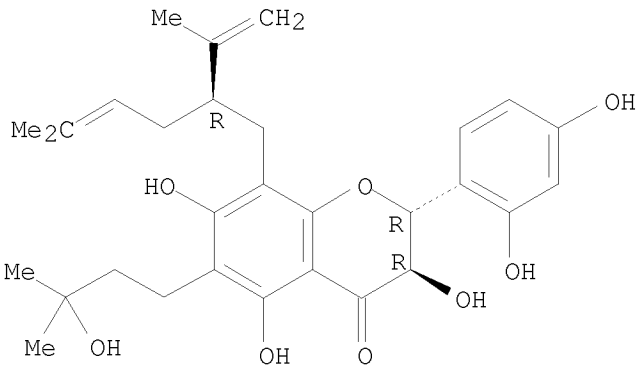


RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2004:640349 CAPLUS
DN 142:290681
TI Anti-proliferative activity of naturally occurring flavonoids on cultured human tumor cell lines
AU Kim, Jung Sook; Choi, Yeon Hee; Seo, Jee Hee; Lee, Jung Won; Kim, Seong-Kie; Choi, Sang Un; Kang, Jong Seong; Kim, Young-Kyoon; Kim, Sung-Hoon; Kim, Young Sup; Ryu, Shi Yong
CS Korea Research Institute of Chemical Technology, Daejeon, 305-606, S. Korea
SO Saengyak Hakhoechi (2004), 35(2), 164-170
CODEN: SYHJAM; ISSN: 0253-3073
PB Korean Society of Pharmacognosy
DT Journal

LA Korean
AB The flavonoids are a very large and important group of polyphenolic natural products, which are united by their derivatization from the heterocycle, flavone. They are distributed in higher plants and occur widely in the fruits and vegetables that make up the human diet. They exhibit a wide range of biol. properties, including antitumor, antiinflammatory, hepatoprotective, antimicrobial, insecticidal and estrogenic activities. They are also major components of many plant drugs and it is possible that they contribute to the curative properties. For the purpose of developing anticancer agent of natural origin, we have evaluated forty four kinds of naturally occurring flavonoids for the inhibitory activity upon the proliferation of cultured human tumor cells such as A549 (non small cell lung), SK-OV-3 (ovary), SK-MEL-2 (melanoma), XF498 (central nerve system) and HCT-15 (colon) in vitro.
IT 182556-80-5, Kosamol A
RL: NPO (Natural product occurrence); PAC (Pharmacological activity); BIOL (Biological study); OCCU (Occurrence)
(anti-proliferative activity of naturally occurring flavonoids on cultured human tumor cell lines)
RN 182556-80-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-[(2R)-5-methyl-2-(1-methylethenyl)-4-hexenyl]-, (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L6 ANSWER 5 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 2003:555124 CAPLUS
DN 139:304537
TI Prenylated flavonoids from the roots of Sophora flavescens with tyrosinase inhibitory activity
AU Son, Jong Keun; Park, Ji Soo; Kim, Jeong Ah; Kim, Youngsoo; Chung, See Ryun; Lee, Seung Ho
CS College of Pharmacy, Yeungnam University, Kyongsan, S. Korea
SO Planta Medica (2003), 69(6), 559-561
CODEN: PLMEAA; ISSN: 0032-0943
PB Georg Thieme Verlag
DT Journal
LA English
AB Prenylated flavonoids containing the resorcinol moiety were isolated as tyrosinase inhibitors from the roots of S. flavescens by activity-guided

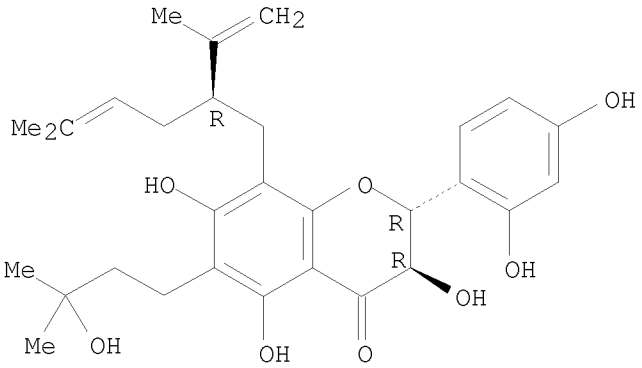
fractionation. Among the 12 compds. isolated, kuraridin, kurarinone, and norkurarinol showed stronger inhibitory potencies (IC50 = 1.1, 1.3 and 2.1 μM, resp.) than that of kojic acid (IC50 = 11.3 μM), a well known tyrosinase inhibitor. Substitution of a lavandulyl or hydroxylavandulyl group at the C-8 position and a methoxy or hydroxy group at the C-5 position are essential for the inhibitory effect.

IT 182556-80-5, Kosamol A
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prenylated flavonoids from the roots of Sophora flavescens with tyrosinase inhibitory activity)

RN 182556-80-5 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-[(2R)-5-methyl-2-(1-methylethenyl)-4-hexenyl]-, (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1999:37786 CAPLUS
DN 130:207297
TI A novel 6-butyl-3-hydroxyflavanone from heartwood of Bauhinia purpurea
AU Kuo, Yueh-Hsiung; Yeh, Ming-Hsi; Huang, Shou-Ling
CS Department of Chemistry, National Taiwan University, Taipei, Taiwan
SO Phytochemistry (1998), 49(8), 2529-2530
CODEN: PYTCAS; ISSN: 0031-9422
PB Elsevier Science Ltd.
DT Journal
LA English
AB Three glycerol derivs. and a novel 6-butyl-3-hydroxyflavanone derivative were isolated from the heartwood of Bauhinia purpurea L. The latter compound was elucidated as 6-(3''-oxobutyl)taxifolin on the basis of spectral evidence.

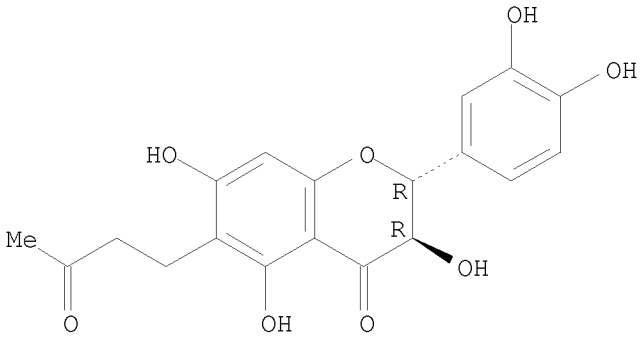
IT 220936-65-2P, 6-(3''-Oxobutyl)taxifolin
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation of the flavanone 6-(3''-oxobutyl)taxifolin and glycerol derivs. from Bauhinia purpurea)

RN 220936-65-2 CAPLUS

CN 4H-1-Benzopyran-4-one, 2-(3,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-

trihydroxy-6-(3-oxobutyl)-, (2R,3R)- (CA INDEX NAME)

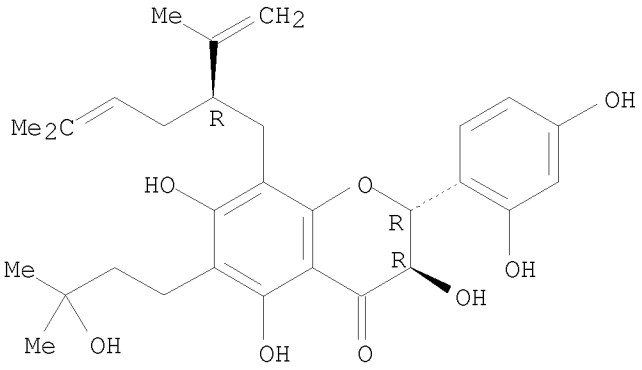
Absolute stereochemistry. Rotation (+).



RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:748550 CAPLUS
DN 128:106293
TI Determination of isoprenyl and lavandulyl positions of flavonoids from Sophora flavescens by NMR experiment
AU Ryu, Shi Yong; Lee, Hyun Sun; Kim, Young Kyoon; Kim, Sung Hoon
CS Korea Research Institute of Chemical Technology, Yusung Taejeon, 305-606, S. Korea
SO Archives of Pharmacal Research (1997), 20(5), 491-495
CODEN: APHRDQ; ISSN: 0253-6269
PB Pharmaceutical Society of Korea
DT Journal
LA English
AB All fifteen flavonoids (1.apprx.15) have been isolated from the roots of Sophora flavescens (Leguminosae) as active principles with cytotoxic property toward human tumor cell lines such as A549, SK-OV-3, SK-Mel-2, XF498 and HCT15, in vitro. All 1H-NMR and 13C-NMR signals of 1.apprx.15 were assigned and structures of 1.apprx.15 were established unambiguously.
IT 182556-80-5P, Kosamol A
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); PREP (Preparation)
(flavonoids from Sophora flavescens)
RN 182556-80-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-[(2R)-5-methyl-2-(1-methylethenyl)-4-hexenyl]-, (2R,3R)- (9CI) (CA INDEX NAME)

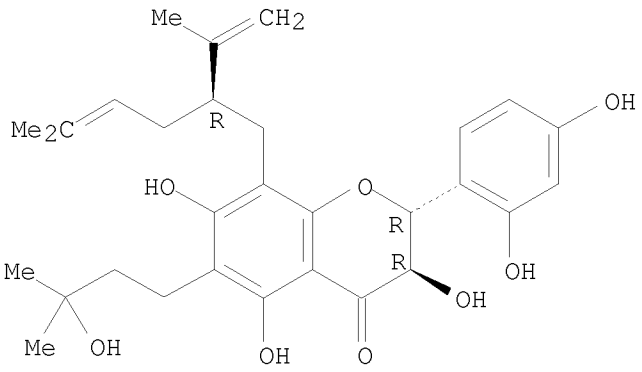
Absolute stereochemistry. Rotation (+).



RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

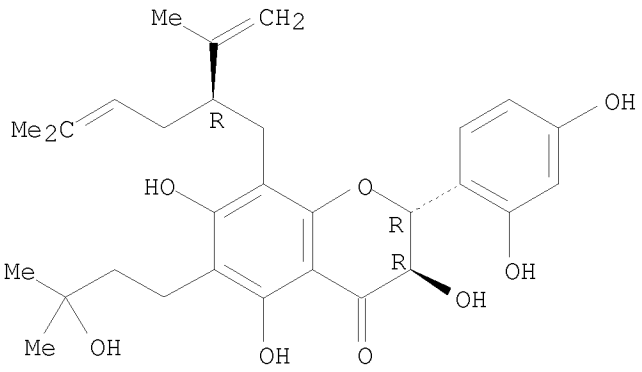
L6 ANSWER 8 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:399810 CAPLUS
DN 127:156268
TI Inhibition of phospholipase Cγ1 by the prenylated flavonoids from Sophora flavescens
AU Lee, Hyan Sun; Ko, Hack Ryong; Ryu, Shi Yong; Oh, Won Keun; Kim, Bo Yeon; Ahn, Soon Cheol; Mheen, Tae Ik; Ahn, Jong Seog
CS Korea Research Inst. Bioscience Biotechnology, Taejon, 305, S. Korea
SO Planta Medica (1997), 63(3), 266-268
CODEN: PLMEAA; ISSN: 0032-0943
PB Thieme
DT Journal
LA English
AB The effect of 11 prenylated flavonoids from S. flavescens was investigated on phospholipase Cγ1 (PLCγ1). These flavonoids exhibited relatively strong inhibitory activity with IC50 values ranged from 7.5 + 10-6-35 + 10-6 M with the exception of kushenol H (4) (IC50 value; >5.3 + 10-4 M). The presence of C3-OH resulted in a diminution of activity and the configuration of C3-OH is likely to be another factor influencing the activity. Hydration of the C-4'''-C-5''' double bond of the lavandulyl side chain caused complete loss of activity. These data suggest that the presence and configuration of C3-OH are related to the inhibitory activity and the lavandulyl side chain is also important for high inhibitory activity against PLCγ1.
IT 182556-80-5, Kosamol A
RL: BAC (Biological activity or effector, except adverse); BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(phospholipase Cγ1 inhibition by the prenylated flavonoids from Sophora flavescens)
RN 182556-80-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-[(2R)-5-methyl-2-(1-methylethenyl)-4-hexenyl]-, (2R,3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



L6 ANSWER 9 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1997:154043 CAPLUS
DN 126:207142
TI In vitro antitumor activity of flavonoids from Sophora flavescens
AU Ryu, Shi Yong; Choi, Sang Un; Kim, Seong-Kie; No, Zaesung; Lee, Chong Ock; Ahn, Jong Woong; Kim, Sung Hoon
CS Korea Research Institute of Chemical Technology, Taejeon, 305-606, Greece
SO Phytotherapy Research (1997), 11(1), 51-53
CODEN: PHYREH; ISSN: 0951-418X
PB Wiley
DT Journal
LA English
AB The cytotoxicity-guided fractionation of the roots of Sophora flavescens (Leguminosae) exts. led to the isolation of 15 active principles 1-15, responsible for cytotoxicity against five kinds of cultured human tumor cell lines, i.e. A549 (non small cell lung), SK-OV-3 (ovary), SK-MEL-2 (skin), XF498 (central nerve system) and HCT-15 (colon), evaluated by SRB method in vitro. Compds. 2-14 were classified as unusual flavonoids occurring exclusively in this species and the proliferation of each of the examined tumor cells were significantly inhibited during continuous exposure to compds. 1-15 for 48 h, resp.
IT 182556-80-5, Kosamol a
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(structure-related antitumor activity of flavonoids from Sophora flavescens)
RN 182556-80-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-[(2R)-5-methyl-2-(1-methylethenyl)-4-hexenyl]-, (2R,3R)- (9CI) (CA INDEX NAME)

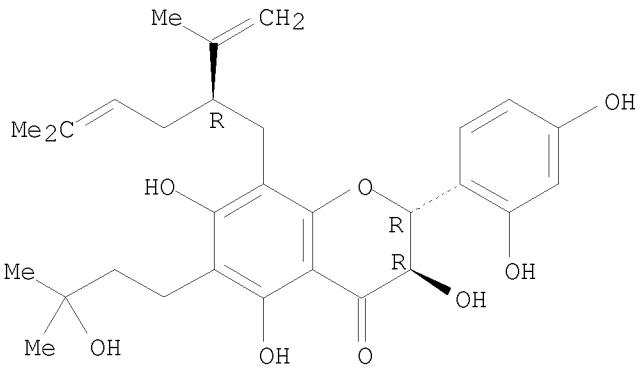
Absolute stereochemistry. Rotation (+).



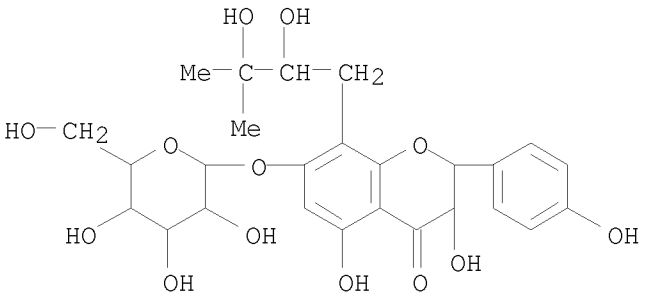
RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1996:618509 CAPLUS
DN 125:270550
TI A novel flavonoid from Sophora flavescens
AU Ryu, Shi Yong; Kim, Seong Kie; No, Zaesung; Ahn, Jong Woong
CS Korea Research Institute Chemical Technology, Taejon, 305606, S. Korea
SO Planta Medica (1996), 62(4), 361-363
CODEN: PLMEAA; ISSN: 0032-0943
PB Thieme
DT Journal
LA English
AB A new dihydroflavonol named kosamol A (I) was isolated from the roots of Sophora flavescens along with 12 related flavonoids. The structure of I was determined to be
(2R,3R)-5,7,2',4'-tetrahydroxy-6-(3-hydroxy-3-methylbutyl)-
8-lavandulylflavanonol on the basis of spectral analyses.
IT 182556-80-5P, Kosamol A
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)
(isolation of kosamol A and related flavonoids from Sophora flavescens)
RN 182556-80-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 2-(2,4-dihydroxyphenyl)-2,3-dihydro-3,5,7-trihydroxy-6-(3-hydroxy-3-methylbutyl)-8-[(2R)-5-methyl-2-(1-methylethenyl)-4-hexenyl]-, (2R,3R)- (9CI) (CA INDEX NAME)

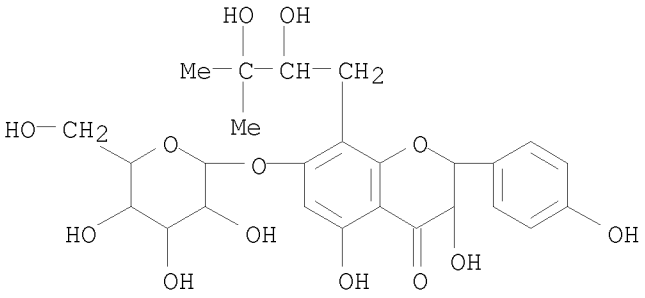
Absolute stereochemistry. Rotation (+).



L6 ANSWER 11 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1994:453967 CAPLUS
DN 121:53967
OREF 121:9663a,9666a
TI Constituents of the leaves of Phellodendron japonicum Maxim
AU Miyaichi, Yukinori; Segi, Hisashi; Tomimori, Tsuyoshi
CS Fac. Pharm. Sci., Hokuriku Univ., Kanazawa, 920-11, Japan
SO Yakugaku Zasshi (1994), 114(3), 186-99
CODEN: YKKZAJ; ISSN: 0031-6903
DT Journal
LA Japanese
AB From the leaves of Phellodendron japonicum Maxim. (Rutaceae), six new flavonoid glycosides (I-VI) were isolated, together with eight known compds. The structures of I-VI were shown to be 8-prenyl-3,4',5-trihydroxyflavone 7-O-β-D-6-O-malonylglucopyranoside, (2R,3R)-8-prenyl-3,4',5-trihydroxyflavanone 7-O-β-D-6-O-malonylglucopyranoside, 8[(R and S)-2,3-dihydroxy-3-methylbutyl]-2,4',5-trihydroxyflavone 7-O-β-D-glucopyranoside, and (2R,3R)-8-[(R and S)-2,3-dihydroxy-3-methylbutyl]-3,4',5-dihydroxyflavanone 7-O-β-D-glucopyranoside, resp., on the basis of the chemical and spectral data.
IT 156216-79-4 156258-54-7
RL: BIOL (Biological study)
(from Phellodendron japonicum leaves, isolation and structure of)
RN 156216-79-4 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-(2,3-dihydroxy-3-methylbutyl)-7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-2-(4-hydroxyphenyl)-, [2R-[2α,3β,8(S*)]]- (9CI) (CA INDEX NAME)

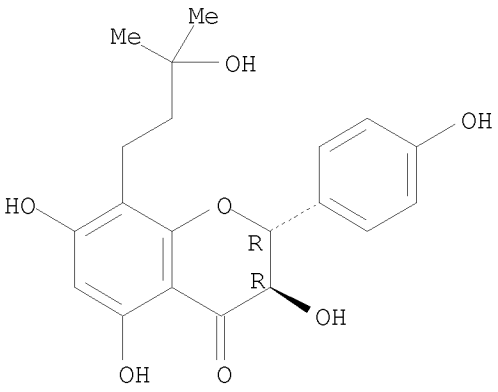


RN 156258-54-7 CAPLUS
CN 4H-1-Benzopyran-4-one, 8-(2,3-dihydroxy-3-methylbutyl)-7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-2-(4-hydroxyphenyl)-, [2R-[2α,3β,8(R*)]]- (9CI) (CA INDEX NAME)

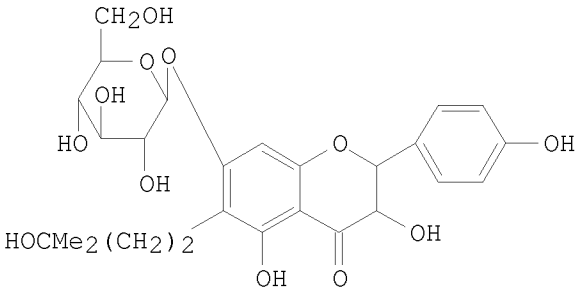


L6 ANSWER 12 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1990:73799 CAPLUS
DN 112:73799
OREF 112:12547a,12550a
TI Six flavonoids from Bursera leptophloeos
AU Souza, Mirian P.; Machado, Maria Iracema L.; Braz-Filho, Raimundo
CS Lab. Prod. Nat., Univ. Fed. Ceara, Ceara, Brazil
SO Phytochemistry (1989), 28(9), 2467-70
CODEN: PYTCAS; ISSN: 0031-9422
DT Journal
LA English
AB From branches of B. leptophloeos 5 flavonoids were isolated: 8-(3''-hydroxy-3''-methylbutyl)-5,7,4'-trihydroxydihydroflavonol, 6'',6''-dimethyldihydropyran (2'',3'':7,8)-5,4'-dihydroxydihydroflavonol, 8-(3''-hydroxy-3''-methylbutyl)-5,7,4'-trihydroxyflavonol, and 2 new related compds. 8-(γ,γ-dimethylallyl)-5,7,4'-trihydroxydihydroflavonol and 5''-isopropenyldihydrofuran-(2'',3'':7,8)-5,4'-dihydroxydihydroflavonol.
IT 124901-83-3
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Bursera leptophloeos)
RN 124901-83-3 CAPLUS
CN 4H-1-Benzopyran-4-one, 2,3-dihydro-3,5,7-trihydroxy-8-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 13 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1982:603132 CAPLUS
DN 97:203132
OREF 97:33925a,33928a
TI Mathematical modeling and optimization of the extraction of a biologically active substance from plant raw material
AU Akhnazarova, S. L.; Tolstykh, L. P.; Zaitseva, N. V.; Shemeryankin, B. V.
CS Mosk. Khim.-Tekhnol. Inst., Moscow, USSR
SO Izvestiya Vysshikh Uchebnykh Zavedenii, Khimiya i Khimicheskaya Tekhnologiya (1982), 25(8), 1008-11
CODEN: IVUKAR; ISSN: 0579-2991
DT Journal
LA Russian
GI



I

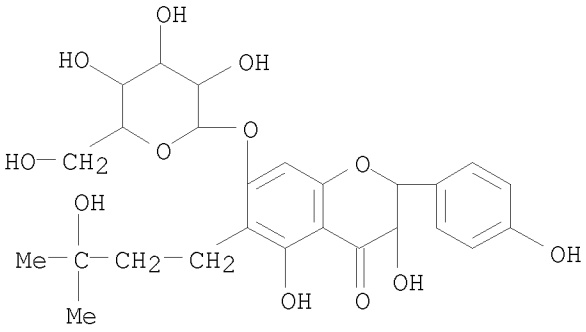
AB A simulation model is presented for optimizing phellavin (I) [32507-67-8] extraction from plant material and included variations of conditions such as 1st, 2nd, and 3rd extraction steps, raw material-solvent ratio, number of extraction stages, temperature of extraction, and types of solvents (MeOH, 50% MeOH, EtOH, or PrOH). The optimum conditions for I extraction in batch extractor were: time of each 1-3 extraction stages 6 h; raw material-solvent ratio 1:6; number of extraction steps 3; extraction temperature 80°; solvent 50%.

Under these conditions, I yield by the batch extraction was 99%. A math. model for continuous, direct, isothermic extraction of I in a cascade extractor was discussed. The equations given allow estimation of the amount of unextd. material and yield of the product based on the number of steps and volume of the extractor. The effect of recycling on the yield of I and economic advantages were discussed.

IT 32507-67-8
RL: BIOL (Biological study)
(extraction of, from Phellodendron amurense, simulation model for)

RN 32507-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R,3R)- (9CI) (CA INDEX NAME)



L6 ANSWER 14 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1981:205397 CAPLUS

DN 94:205397

OREF 94:33575a,33578a

TI Dynamics of phellavin accumulation in the leaves of Phellodendron amurense RUPR. growing in the Primor'ye region

AU Otryashenkova, V. E.; Kir'yanov, A. A.; Krivut, B. A.; Prisyazhnyuk, N. P.

CS I Mosk. Med. Inst., Moscow, USSR

SO Khimiko-Farmatsevticheskii Zhurnal (1981), 15(3), 55-7
CODEN: KHFZAN; ISSN: 0023-1134

DT Journal

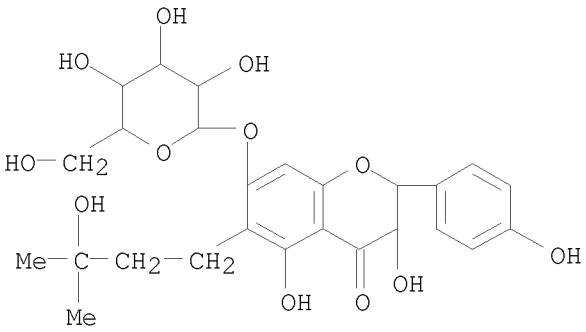
LA Russian

AB Depending on collection date in June and July phellavin content of leaves of P. amurense was 3.15-5.02% (on dry matter basis). Phellavin contents decreased during growth period being highest in May-June and lowest at the end of Aug. and Sep. Full flowering-beginning of fruiting was the most suitable time for leaf collection.

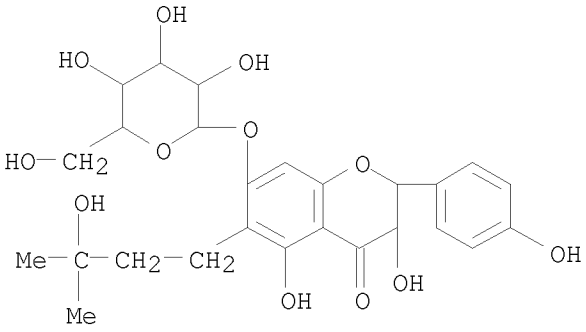
IT 32507-67-8
RL: PROC (Process)
(in Phellodendron amurense, dynamics of accumulation of)

RN 32507-67-8 CAPLUS

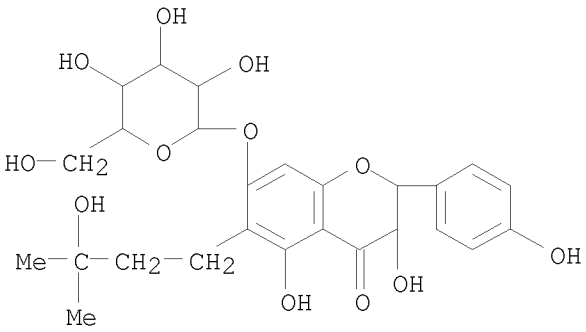
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R,3R)- (9CI) (CA INDEX NAME)



L6 ANSWER 15 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1980:403280 CAPLUS
DN 93:3280
OREF 93:639a,642a
TI Method for the quantitative determination of phellavin in the leaves of Phellodendron trees
AU Kir'yanov, A. A.; Krivut, B. A.; Fedyunina, N. A.
CS USSR
SO Khimiko-Farmatsevticheskii Zhurnal (1980), 14(3), 128
CODEN: KHFZAN; ISSN: 0023-1134
DT Journal
LA Russian
AB For the quant. determination of phellavin, Phellodendron leaves were extracted with MeOH-H2O (6:4) by boiling for 2 h. The extract was passed through cellulose with 3% NaCl as the mobile phase. The zone containing phellavin was extracted with EtOH. The absorbance of the eluate was measured at 293 mm. The method had a satisfactory reproducibility with an accuracy of ±3.91%.
IT 32507-67-8
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in Phellodendron leaves)
RN 32507-67-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R,3R)- (9CI) (CA INDEX NAME)



L6 ANSWER 16 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1978:117795 CAPLUS
DN 88:117795
OREF 88:18473a,18476a
TI Phytochemical study of the Phellodendron genus
AU Otryashenkova, V. E.; Glyzin, V. I.; Mashnin, A. I.
CS I Mosk. Med. Inst., Moscow, USSR
SO Acta Pharmaceutica Jugoslavica (1977), 27(3), 131-4
CODEN: APJUA8; ISSN: 0001-6667
DT Journal
LA Russian
AB A study on P. sachalinense revealed the flavonoids hyperoside, phellatin, and phellavin. Phellavin was the basic flavonoid component of these leaves; it was quant. determined by chromatog.-spectrophotometric methods. The optimal date for collecting the leaves for recovery of phellavin was determined to be the period of growth cessation of the leaf lamina, wherein the content was .apprx.5%.
IT 32507-67-8
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Phellodendron leaves)
RN 32507-67-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R,3R)- (9CI) (CA INDEX NAME)



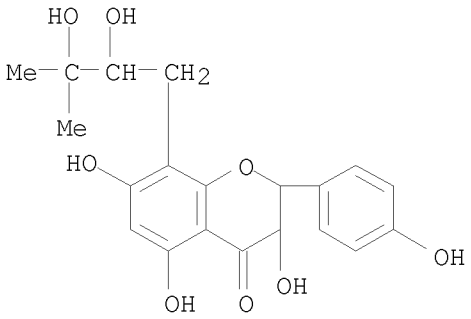
L6 ANSWER 17 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1978:47325 CAPLUS
DN 88:47325
OREF 88:7460h,7461a
TI Degradation of the plant flavonoid phellamurin by Aspergillus niger
AU Sakai, Saeko
CS Fac. Sci., Tokyo Metrop. Univ., Tokyo, Japan
SO Applied and Environmental Microbiology (1977), 34(5), 500-5
CODEN: AEMIDF; ISSN: 0099-2240
DT Journal
LA English
GI For diagram(s), see printed CA Issue.
AB Degradation of phellamurin (I), a plant flavoid, by Aspergillus niger produced 11 metabolic products. Neophellamuretin was the 1st degradation

product. Fission of the heterocyclic ring obtained from neophellamuretin was followed by a cleavage of a C-C bond between CO and C at α-position. A proposed pathway for I degradation by A. niger is presented.

IT 65332-46-9
RL: FORM (Formation, nonpreparative)
(formation of, from phellamurin, by Aspergillus niger)

RN 65332-46-9 CAPLUS

CN 4H-1-Benzopyran-4-one, 8-(2,3-dihydroxy-3-methylbutyl)-2,3-dihydro-3,5,7-trihydroxy-2-(4-hydroxyphenyl)- (CA INDEX NAME)



L6 ANSWER 18 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1977:117597 CAPLUS

DN 86:117597

OREF 86:18565a,18568a

TI Flavanonol glycoside from plants of the genus Phellodendron

AU Otryashenkova, V. E.; Glyzin, V. I.; Shreter, G. K.

CS I Mosk. Med. Inst. im. Sechenova, Moscow, USSR

SO Khimiya Prirodnykh Soedinenii (1976), (5), 662-3
CODEN: KPSUAR; ISSN: 0023-1150

DT Journal

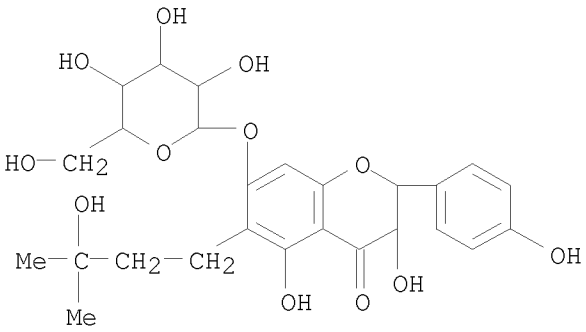
LA Russian

AB The glycoside ($C_{26}H_{32}O_{12}$, m.p. 200-3) isolated from P. amurense was assumed to be phellamurin. Those isolated from P. japonicum, P. chinense, P. sacchalense, and P. piriforme appeared to be identical with phellavin (7-O-β-D-glucopyranosyl isonoricaritin). The latter compound appears to be a basic glycosidic component of this genus.

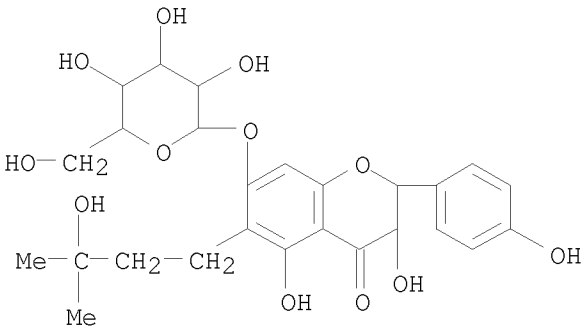
IT 32507-67-8
RL: BIOL (Biological study)
(from Phellodendron species)

RN 32507-67-8 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R,3R)- (9CI) (CA INDEX NAME)



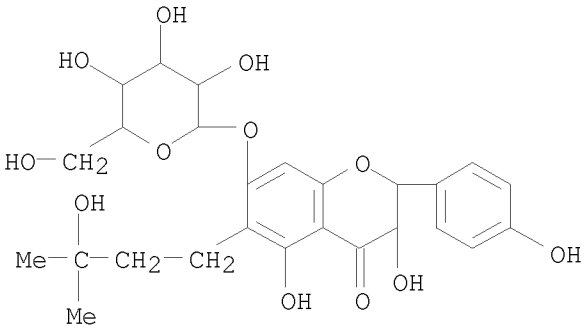
L6 ANSWER 19 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1974:566325 CAPLUS
DN 81:166325
OREF 81:25715a,25718a
TI Flavonoids of plants of the genera Lespedeza, Phellodendron, and Betula
AU Glyzin, V. I.; Ban'kovskii, A. I.
CS Vses. Nauchno-Issled. Inst. Lek. Rast., Moscow, USSR
SO Fenol'nye Soedin. Ikh Fiziol. Svoistva, Mater. Vses. Simp. Fenol'nym Soedin., 2nd (1973), Meeting Date 1971, 145-50. Editor(s): Klyshev, L. K. Publisher: "Nauka" Kaz. SSR, Alma-Ata, USSR.
CODEN: 28MHAX
DT Conference
LA Russian
AB Flavonoids of the genera Lespedeza, Phellodendron (cork tree), and Betula (birch) were studied. Twelve flavonoids were identified in Lespedeza plants. Two flavonoid glycosides, phellavin and phellatin, were separated from Phellodendron plants and their structures determined Phellavin (C26H32O12) was identified as 6-γ-oxyisopentyl-4',5-dioxy-7-β-D-glucopyranosyl flavanol, and phellatin (C26H30O12) as 6-γ-oxyisopentyl-5,4'-dioxy-7-β -D-glucopyranosyl flavanol. Flavonoids of the genus Betula were represented by 3 monoglycosides: hyperoside, isohyperoside, and betmidin. Isohyperoside is quercetin-3-β-D-galactofuranoside, and betmidin is myricetin-3-α-L-arabofuranoside.
IT 32507-67-8
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(of Phellodendron)
RN 32507-67-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R,3R)- (9CI) (CA INDEX NAME)



IT 53109-34-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 53109-34-5 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, heptaacetate, (2R-trans)- (9CI) (CA INDEX NAME)

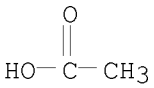
CM 1

CRN 32507-67-8
CMF C26 H32 O12



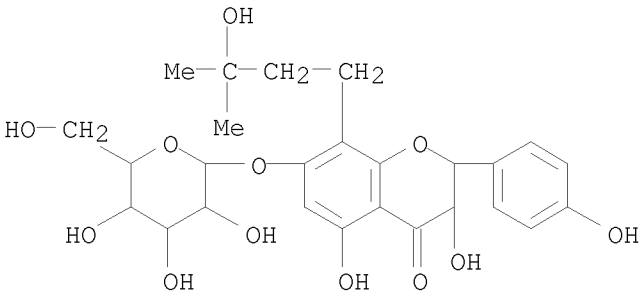
CM 2

CRN 64-19-7
CMF C2 H4 O2



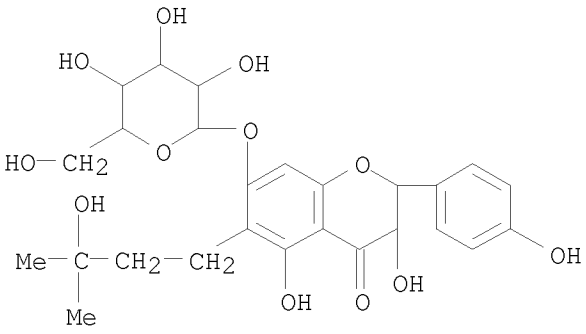
L6 ANSWER 20 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1974:129587 CAPLUS
DN 80:129587
OREF 80:20873a,20876a
TI Structure of phellamurin
AU Sakai, Saeko; Hasegawa, Masao
CS Fac. Sci., Tokyo Metrop. Univ., Tokyo, Japan
SO Phytochemistry (Elsevier) (1974), 13(1), 303-4
CODEN: PYTCAS; ISSN: 0031-9422
DT Journal
LA English
AB During the degradation of phellamurin by Aspergillus niger, a colorless, crystalline compound, neophellamuretin (I), with a m.p. of 190° and having the properties of a flavonol was isolated. The properties of this compound were not identical with those of phellamuretin. An EtOH solution of I gave a purplish brown coloration with FeCl3. When reduced with Mg2+ or Zn2+ powder and concentrated HCl a reddish purple coloration was developed which was characteristic of flavonols. The aglycon had uv absorption peaks at 300 and 340 nm, the former peak underwent a bathochromic shift of 20 nm on the addition of AlCl3. I coincided in all of its properties with an aglycon of phellamurin obtained by hydrolysis with β-glucosidase. Acid treatment of I gave phellamuretin. From these and other results the structure of I was determined as 3,5,7,4'-tetrahydroxy-8-isoprenylflavanone; the structure of phellamurin should be the corresponding 7-O-glucoside.
IT 549-16-6
RL: PRP (Properties)
(structure of)
RN 549-16-6 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-8-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R-trans)-(9CI) (CA INDEX NAME)



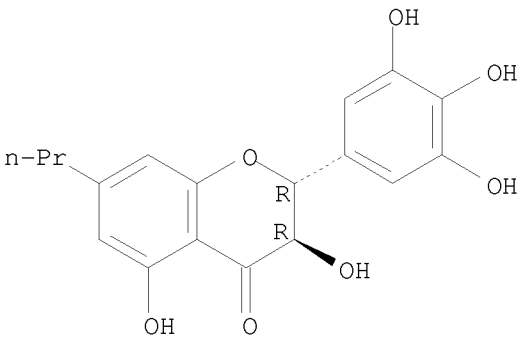
L6 ANSWER 21 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1971:108104 CAPLUS
DN 74:108104
OREF 74:17511a,17514a
TI New flavonol glycosides from Phellodendron lavallei and Phellodendron amurense
AU Glyzin, V. I.; Ban'kovskii, A. I.; Sheichenko, V. I.; Molodozhnikov, M. M.
CS Vses. Nauchno-Issled. Inst. Lek. Rast., Moscow, USSR
SO Khimiya Prirodnykh Soedinenii (1970), 6(6), 762-3
CODEN: KPSUAR; ISSN: 0023-1150
DT Journal
LA Russian

GI For diagram(s), see printed CA Issue.
AB Phellavin and phellatin, isolated from P. lavallei and P. amurense leaves, were I and II, resp.
IT 32507-67-8
RL: BIOL (Biological study)
(new glycoside from Phellodendron, structure of)
RN 32507-67-8 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-6-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R,3R)- (9CI) (CA INDEX NAME)



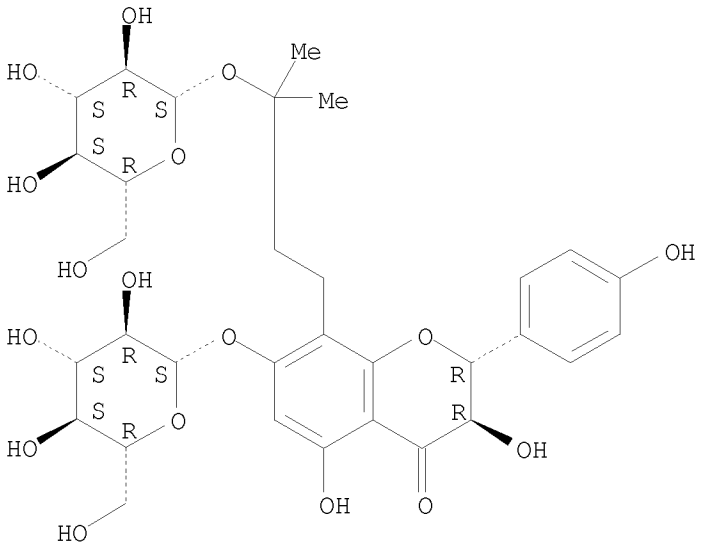
L6 ANSWER 22 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1970:86953 CAPLUS
DN 72:86953
OREF 72:15795a,15798a
TI Thin-layer chromatography in biomedical research
AU Trivedi, J. J.
CS Physiol. Dep., Smt. N. H. L. Munic. Med. Coll., Ahmedabad, India
SO Journal of the Institution of Engineers (India), Part GE: General Engineering (1969), 49(Pt. 2), 90-5
CODEN: JEGEAZ; ISSN: 0368-1920
DT Journal; General Review
LA English
GI For diagram(s), see printed CA Issue.
AB After reviewing applications of thin-layer chromatog. and electrophoresis in biomed. research, including quant. detns., the use of thin-layer chromatog. for separating components in the EtOAc extract of Pterocarpus marsupium
heartwood is reported. By development with the upper layer of a 25:25:6 BuOH-H2O-HOAc mixture and spraying with H2SO4, 5 spots were detected and the structure of 1 component was identified tentatively as I. Multiple development with 25:25:6 BuOH-H2O-HOAc and H2O-saturated EtOAc, in either order, and spraying with H2SO4 gave 7 colored spots. 19 refs.
IT 28137-10-2
RL: ANST (Analytical study)
(a new flavanone)
RN 28137-10-2 CAPLUS
CN Marsupinol (8CI) (CA INDEX NAME)

Absolute stereochemistry.

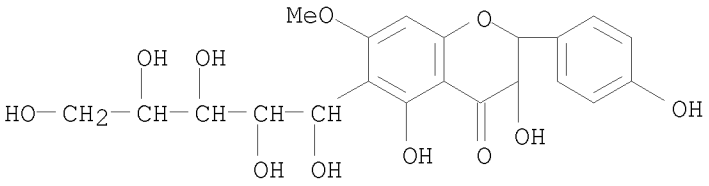


L6 ANSWER 23 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1968:441709 CAPLUS
DN 69:41709
OREF 69:7795a,7798a
TI The flavonoids of Phellodendron sachalinense and P. amurense
AU Shevchuk, O. I.; Maksyutina, N. P.; Litvinenko, V. I.
CS Kiev. Inst. Usoversh. Vrach., Kiev, USSR
SO Khimiya Prirodnykh Soedinenii (1968), 4(2), 77-82
CODEN: KPSUAR; ISSN: 0023-1150
DT Journal
LA Russian
GI For diagram(s), see printed CA Issue.
AB The leaves of P. sachalinense and P. amurense contained up to 10% flavonoid type substances, from which three individual products were isolated: hyperin, and two new compds. named phellozide (I), yellow needle-shaped crystals, m. 282-4°, C32H40O17, and dihydrophellozide (II) (2,3-dihydro-I), white needle-shaped crystals, m. 150-2°, C32H42O17.
IT 20194-52-9
RL: BIOL (Biological study)
(in Phellodendron amurense and P. sachalinense)
RN 20194-52-9 CAPLUS
CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-8-[3-(β-D-glucopyranosyloxy)-3-methylbutyl]-2,3-dihydro-3,5-dihydroxy-2-(4-hydroxyphenyl)-, (2R,3R)- (CA INDEX NAME)

Absolute stereochemistry.



L6 ANSWER 24 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1958:69053 CAPLUS
DN 52:69053
OREF 52:12395d-e
TI Flavonoids of Zelkova serrata wood. VIII
AU Funaoka, Koji
CS Univ. Kyushu, Fukuoka
SO Mokuzai Gakkaishi (1957), 3, 218-24
CODEN: MKZGA7; ISSN: 0021-4795
DT Journal
LA Unavailable
AB Tangeritin (3,4',5,6,7-pentamethoxyflavone) and its related compds. were derived from dimethyl-I by the action of HIO4 and then NaOH. II was oxidized to I through air oxidation with Na cinnamate. Consequently, it was proposed that the (1,2,3,4,5-pentahydroxypentyl) group of I occupied the 6th position of I, and that II was dihydro-I, namely 3,4',5-trihydroxy-7-methoxy-6-(1,2,3,4,5-pentahydroxypentyl)flavanone. Moreover, the growth-regulating activity of I and II against wood-rotting fungi (Poria vaporaria and Polystictus sanguineus) was examined; it was found that I and II controlled the growth of fungi.
IT 112742-34-4, Flavanone, 3,4',5-trihydroxy-7-methoxy-6-(1,2,3,4,5-pentahydroxypentyl)-
(keyakinol and)
RN 112742-34-4 CAPLUS
CN Flavanone, 3,4',5-trihydroxy-7-methoxy-6-(1,2,3,4,5-pentahydroxypentyl)-(6CI) (CA INDEX NAME)



L6 ANSWER 25 OF 25 CAPLUS COPYRIGHT 2008 ACS on STN
AN 1955:4848 CAPLUS
DN 49:4848
OREF 49:1030a-i,1031a-g
TI Two new flavanoid glycosides from the leaves of Phellodendron amurense
AU Hasegawa, Masao; Shirato, Teruo
CS Govt. Forest Expt. Sta., Tokyo
SO Journal of the American Chemical Society (1953), 75, 5507-11
CODEN: JACSAT; ISSN: 0002-7863
DT Journal
LA Unavailable
GI For diagram(s), see printed CA Issue.
AB From the fresh leaves of Phellodendron amurense, a tree of Rutaceae, 2 new flavoanoid glycosides have been isolated. One of them, phellamurin, is shown to be 4,'5,7-tetrahydroxy-8-(γ-hydroxyisovaleryl)flavanonyl 7-glucoside (I), and the other, amurensin, to be the corresponding flavonyl glucoside II. The conversion of I into II has been successfully achieved. Fresh leaves of P. amurense extracted 3 hrs. with 3 l. boiling MeOH, the extraction repeated with fresh MeOH, the combined exts. distilled in vacuo on the water bath, the residue mixed with 2 l. H2O, the mixture heated for a time and filtered, the filter residue extracted once more with 1 l. hot H2O, the combined filtrate decolorized with a small amount charcoal while hot and let stand overnight, the precipitated gelatinous mass filtered off and treated with 1 l. hot H2O, the insol. portion filtered off, the filtrate mixed with an equal volume EtOAc, the solution let stand overnight, and the crystalline deposit recrystd. repeatedly from EtOAc containing a small volume H2O
yielded about 50 g. I, m. 205°, from 5 kg. fresh leaves; the portion insol. in hot H2O, dried, washed with Et2O, and recrystd. from a large volume MeOH yielded 2.2 g. II, minute yellow needles, m. 290°. I in MeOH gave a violet coloration when reduced with Zn powder and concentrated HCl and a reddish color with Mg powder and concentrated HCl; it gave a green color with FeCl3, and was insol. in C6H6, Et2O, petr. ether, ligroine, cold H2O, and cold EtOAc, readily soluble in MeOH, EtOH, and Me2CO; λmaximum 290 (4.24), 345 (3.60), λmin. 322 mμ (log ε 3.30). I (4 g.) in 100 cc. Me2CO heated 1 hr. with 10 g. K2CO3 and 2 cc. Me2SO4, the mixture filtered, the Me2CO distilled off, and the residue washed with Et2O and recrystd. from MeOH gave 3 g. di-Me ether of I, colorless needles, m. 200° (from MeOH). I (0.2 g.) let stand 24 hrs. in the cold with 1 cc. each of pyridine and Ac2O, and the mixture poured into H2O gave 0.2 g. acetate of I, colorless slender prisms, m. 202°. I (1.11 g.) in 40 cc. 5% H2SO4 heated 3 hrs. on a water bath and the white precipitate filtered off and recrystd. from MeOH yielded 0.7 g. phellamuretin (IV), colorless needles, m. 220°; in the mother liquor remained 404-8 mg. glucose. III gave a purplish brown coloration with FeCl3, and developed a reddish purple coloration with Mg or Zn powder and concentrated HCl;

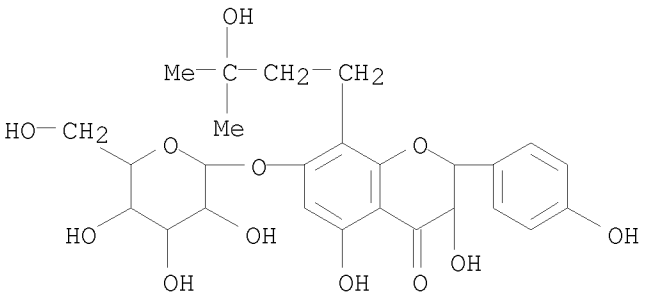
λmaximum 300 (4.28), λmin. 255 mμ (log ε 3.17). IV (0.5 g.), 100 cc. Me_2CO, Me_2SO_4, and 6 g. K_2CO_3 heated on the water bath 1 hr., the solvent distilled off, the residue treated with stirring with a small amount petr. ether, and the resulting crystalline solid (0.3 g.) recrystd. from MeOH gave the di-Me ether (V) of IV, prisms, m. 163°. IV (0.1 g.) in 50 cc. Et_2O let stand overnight with 100 cc. ethereal CH_2N_2, the Et_2O evaporated, and the residue recrystd. from MeOH gave a mono-Me ether of IV, needles, m. 187°; gave a purplish brown color with $FeCl_3$ and an orange color with Mg powder and concentrated HCl. IV (1.5 g.), 30 g. KOH, and 1 cc. H_2O heated in a Ni crucible over a direct flame 10 min. at 200°, 8 min. at 205°, and then 10 min. at 250-70°, the mixture cooled, the resulting solid dissolved in 200 cc. H_2O, acidified with cooling with 10% H_2SO_4, steam distilled, the distillate saturated with NaCl, the oily precipitate (0.5 cc.) and 8 cc. $PhNH_2$ heated 3 hrs. in a sealed tube at 200°, the mixture poured into 200 cc. 5% HCl and let stand overnight, and the precipitate recrystd. from aqueous MeOH yielded 0.15 g. $Me_2CHCH_2CONHPh$, prisms, m. 114°; the mother liquor extracted several times with Et_2O, the Et_2O extract extracted with 1% aqueous $NaHCO_3$, the alkaline extract washed with Et_2O, acidified, and extracted with Et_2O, and the residue from the Et_2O extract recrystd. from H_2O gave p-$HOC_6H_4CO_2H$, m. 210°; the Et_2O extract of the mother liquor after extraction with aqueous $NaHCO_3$ extracted with 1% aqueous KOH and evaporated gave phloroglucinol, prisms, m. 212°. IV (0.2 g.), 2 cc. Ac_2O, and 1 drop concentrated H_2SO_4 let stand at room temperature and the solution poured into H_2O gave the acetate of IV, colorless needles, m. 199°. V (0.2 g.) acetylated in the usual manner gave 0.2 g. acetate of V, colorless prisms, m. 177° (from MeOH). IV (1.8 g.) in 40 cc. MeOH treated with 5 cc. 10% aqueous KOH and 1 cc. 30% H_2O_2, the mixture refrigerated 24 hrs. and diluted with 80 cc. H_2O, and the precipitate (1.5 g.) recrystd. from MeOH gave nor-β-anhydroicaritin (VI), minute yellow needles, m. 305°. IV (5 g.) in 50 cc. 10% KOH boiled 4 min., the mixture cooled, and the black precipitate filtered off and recrystd. from MeOH yielded 0.3 g. VI; acetate, m. 212°; Me ether (VII), m. 223°. V (0.5 g.) gave by the method of Oyamada (C.A. 29, 762.1) 0.3 g. nor-β-anhydroicaritin di-Me ether, yellow needles, m. 186° (from MeOH). VII which is identical with β-anhydroicaritin di-Me ether (1.5 g.) decomposed by the method of Akai (J. Pharm. Society Japan 55, 112(1935)) gave 0.3 g. p-$MeOC_6H_4CO_2H$ and 0.5 g. icaritol [2-dimethyl-5-hydroxy-6-(γ-methoxyacetyl)-7-methoxychroman], m. 105° (oxime, m. 164°). III (0.7 g.) was oxidized to 0.5 g. 5,4'-di-Me ether (VIII) of II, needles, m. 256° (from MeOH), λmaximum 365 (4.42), 265 (4.42), λmin. 290 mμ (log ε 4.08), gave a brown color with $FeCl_3$. I (5 g.) oxidized similarly by the method of Oyamada (loc. cit.) yielded 3.0 g. II, yellow crystals, m. 290°. VIII (0.2 g.) heated on the water bath with 70 cc. Me_2CO and 70 cc. 3% HCl, the Me_2CO evaporated gradually, the resulting yellow crystals extracted after 1.5 hrs. with Et_2O, and the residue from the extract recrystd. from MeOH gave nor-β-anhydroicaritin di-Me ether, m. 186°. II gave in MeOH with $FeCl_3$ a greenish coloration and an orange color with Mg powder and concentrated HCl; it was sparingly soluble in the

usual organic solvents, moderately soluble in Me2CO; λmaximum 377 (4.23), 270 (4.28), λmin. 306 mμ (log ε 3.94). II (1 g.) suspended in 20 cc. H2O and treated dropwise with 20 cc. concentrated H2SO4, the mixture neutralized with cooling with 10% aqueous KOH, and the precipitate recrystd. from MeOH gave 0.32 g. VI, m. 305°; in an identical run 0.237 g. II gave 0.1602 g. VI. VI gave a greenish brown color with FeCl3; was insol. in the usual organic solvents except Me2CO; λmaximum 365 (4.32), 271 (4.38), λmin. 296 mμ (log ε 3.90). VI (0.2 g.), 2 cc. Me2SO4, 10 g. K2CO3, and 100 cc. Me2CO heated 6 hrs. on the water bath, the mixture filtered and evaporated, and the residue recrystd. from MeOH gave 0.1 g. VII, m. 223°. II (0.3 g.), 3 cc. Me2SO4, 12 g. K2CO3, and 50 cc. Me2CO heated 1 hr. on the water bath, the MeOH evaporated, the solution diluted with 50 cc. H2O and extracted several times with Et2O, the extract evaporated, and the residue recrystd. from MeOH gave 0.1 g. VII, long needles, m. 223°. II (0.1 g.) treated in the cold with 1 cc. pyridine and 2 cc. Ac2O, and the mixture let stand overnight and poured into H2O yielded 0.1 g. acetate of II, long colorless prisms, m. 199° (from MeOH).

IT 549-16-6, Flavanone, 3,4',5,7-tetrahydroxy-8-(3-hydroxy-3-methylbutyl)-, 7-glucoside
(as structure of phellamurin, and derivs.)

RN 549-16-6 CAPLUS

CN 4H-1-Benzopyran-4-one, 7-(β-D-glucopyranosyloxy)-2,3-dihydro-3,5-dihydroxy-8-(3-hydroxy-3-methylbutyl)-2-(4-hydroxyphenyl)-, (2R-trans)-(9CI) (CA INDEX NAME)



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